

### **REMARKS**

The Office Action of June 15, 2006 presents the examination of claims 10-14, claims 1-9 and 15 being withdrawn from consideration following restriction of the claims. The present paper amends claims 10-12, 14 and 15. The present paper cancels claims 3-4, 7-9, directed to protein or animal embodiments of withdrawn subject matter and also claim 13, deemed redundant in view of cancellation of claim 9. Claims 16 and 17 are added, directed to subject matter removed from claim 12.

#### **Amendments to the claims**

Claim 10 is amended to clarify that the paraoxonase gene examined is a human paraoxonase gene. Claims 11-12 and 14 are amended to provide proper antecedent basis for various claim terms. Claim 12 is amended to remove an alternative embodiment deemed by the Examiner to render the claim confusing, which subject matter is retained in the application by new claims 16 and 17. Claim 15 is amended to maintain dependence upon pending claims.

No new matter is added to the application by any amendment.

#### **Restriction**

The Examiner has maintained the restriction of the application. Applicants have herein canceled withdrawn subject matter directed to protein and animal embodiments of the invention. Applicants submit that the remaining withdrawn subject matter, as set forth in claims 1, 2, 4 and 5 is subject matter that relates to polynucleotides useful in the methods presently claimed, and so such subject matter should be examined together with the assay methods presently examined. Claim 15 is directed to a kit for performing the presently claimed method. Therefore, these claims should also be examined in the present application.

In particular, at least claim 5, directed to a polynucleotide that includes the variant nucleotide sequence deemed to provide a novel feature of the present invention should be examined, as the Examiner has already conducted a search that should encompass this subject matter. Similarly, claim 15 is directed to a kit for determining the presence of the variant

nucleotide sequence that is deemed by the Examiner to provide a novel feature of the invention and has already been searched.

Claims 1 and 2 are directed to polynucleotides that amplify exon 4 of the human paraoxonase gene, which is the region in which the Ile102Val mutation is found, and thus these polynucleotides are especially useful in the presently examined invention.

Rejoinder of at least claim 5, and preferably one or more of claims 1, 2, 4 and 15 as well, to the present application is thus requested.

Objection to claim 13

Claim 13 is deemed by the Examiner to be not further limiting of claim 10. Claim 13 is canceled, thus obviating this objection.

Rejections under 35 U.S.C. § 112, first paragraph

*Written description*

Claims 10 and 13 are rejected under 35 U.S.C. § 112, first paragraph, for alleged lack of adequate written description support by the specification. Claim 13 is canceled, rendering this rejection moot as to that claim. This rejection is respectfully traversed as applied to claim 10. Reconsideration and withdrawal thereof are requested.

The Examiner takes a position that the structural features of the paraoxonase gene that establish a gene as a "PON1" gene are not known in the art or described in the specification. The claims have been amended to clarify that the gene that is a human PON1, commensurate with the scope that the Examiner considers adequately known in the art (Office Action p. 4, line 5). Thus, this rejection is overcome.

*Enablement*

Claims 12 and 14 stand rejected under 35 U.S.C. § 112, first paragraph, for alleged lack of enablement by the disclosure of the specification. This rejection is respectfully traversed. Reconsideration and withdrawal thereof are requested.

Applicants note that the subject matter of claims 12 and 14 that is the basis for the rejection has now been moved into new claims 16 and 17.

The Examiner takes a position that the specification does not enable one of ordinary skill in the art to assess the effectiveness of an agonist or of a paraoxonase inducing or enhancing therapy. The Examiner mentions in passing the so-called “Wands” factors for considering whether undue experimentation is required to practice the invention, but does not particularly apply them as required. Thus, the instant rejection fails at the outset, as the Examiner does not establish a *prima facie* case of lack of enablement.

More importantly in the instant case, the Examiner seems to have considered enablement of determining whether a particular compound is an agonist or inducer of paraoxonase. (“The specification does not describe or teach any agonists or paraoxonase inducing or enhancing therapies.”) However, this is not the invention. Rather, the specification well-describes that the instant invention lies in the correlation of the level of paraoxonase activity with likelihood of developing any of several diseases, and that a particular mutation (Ile102Val), which inactivates human paraoxonase is linked with increased likelihood of disease.

The present claims 16 and 17 recite that efficacy of a treatment of a patient that relies upon activating or inducing a paraoxonase protein is determined by assay of the genotype of the patient for the Ile102Val mutation in the genotype of the patient. It seems plain to anyone, certainly to one of ordinary skill in the art of medicine, that if the mechanism upon which a treatment is based, i.e. activating or inducing an enzyme, is not working in a patient then the treatment would not be effective. Thus, Applicants submit that the invention described by claims 16 and 17 is well-enabled by the disclosure of the present specification. Whether the

embodiment of the paraoxonase agonist or paraoxonase inducing or enhancing treatment that is assessed is one that is presently known or later developed is not relevant to consideration of enablement of the present claims 16 and 17.

Accordingly, the rejection of claims 12 and 14 (now 16 and 17) under 35 U.S.C. § 112, first paragraph, for lack of enablement by the disclosure, should be withdrawn.

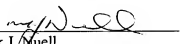
In view of the above amendment, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Mark J. Nuell Reg. No. 36,623 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By   
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